REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application and for courtesies extended during the Examiner Interview conducted on February 11, 2008.

Disposition of Claims

Claims 1-26 were pending in this application. Claims 2-4, 6, 12-17, and 19 have been cancelled by this reply without prejudice or disclaimer. New claim 27 has been added by this reply. Claims 1, 18, and 25-27 are independent. The remaining claims depend, directly or indirectly, from claims 1 and 18.

Claim Amendments

Independent claims 1, 18, 25, and 26 have been amended to clarify the invention. Support for these amendments may be found, for example, in Figure 5 and the related paragraphs in the application. Further, claims 5 and 20 have been amended to address antecedent basis issues arising from the amendments made to claims 1 and 18. New claim 27 has been added by this reply. Support for new claim 27 may be in cancelled original claim 15, and Figure 5 and the related paragraphs in the application. No new matter has been added by any of the aforementioned amendments.

Summary of Examiner Interview

A telephonic Examiner Interview ("Interview") was conducted on February 11, 2008, to discuss the referenced application. Aly Z. Dossa and Examiner S. Debnath participated in the Interview. During the Interview, Aly Z. Dossa proposed a claim amendment for independent claim 1 and discussed why the proposed amendments overcame the teachings of U.S. Patent Application Publication Serial No. 2002/0161972 ("Talagala").[1] At the close of the Interview, no formal agreement was reached. The proposed amendments and arguments presented during the Interview are similar to those presented in this response. Applicants believe that this summary satisfies the requirements specified in MPEP § 713.04. Applicants have reviewed the Interview Summary issued by the Examiner on February 15, 2008, and agree with its contents.

Rejections under 37 C.F.R. § 102

Claims 1-26 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent Application Publication Serial No. 2002/0161972 ("Talagala"). Claims 2-4, 6, 12-17, and 19 have been cancelled by this reply without prejudice or disclaimer. Accordingly, this rejection is now moot with respect to the cancelled claims. To the extent that this rejection applies to the amended claims, this rejection is respectfully traversed.

Amended independent claim 1 requires, in part: (i) four distinct blocks: a first indirect block, a second indirect block, a first data block, and a second data block, (ii) that each of the four blocks

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[1] No exhibits were shown during the Interview.

are located in separate physical locations in the storage pool[2], (iii) that the first indirect block includes a first block pointer and a second block pointer, where the first block pointer includes a first data block location (*i.e.,* the location of the first data block in the storage pool) and the first data block checksum (*i.e.,* a checksum calculated using the first data block) and wherein the second block pointer includes second data block location (*i.e.,* the location of the second data block in the storage pool) and the second data block checksum (*i.e.,* a checksum calculated using the second data block), (iv) that the second indirect block includes a first indirect block location (*i.e.,* the location of the first indirect block in the storage pool) and the first indirect block checksum (*i.e.,* a checksum calculated using the first indirect block), and (v) that the aforementioned blocks are stored in the following order: first and second data blocks→first indirect block→second indirect block. *See e.g.,* Application, Figures 5 and 6.

Turning to the rejection, in order to establish anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. *See* MPEP § 2131. Applicants assert that Talagala fails to disclose one or more of the limitations of amended independent claims.

Specifically, the Examiner has attempted to equate teachings of Talagala with claimed invention. The Applicants respectfully disagree. Talagala is directed to a modified RAID scheme, which includes a modified parity mechanism and a data block-level checksum. More specifically, Talagala discloses storing data blocks and the corresponding parity blocks in a block remapping

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[2] The separate physical locations may be in continuous locations in memory; however, each of the locations is individually accessible using the block locations. Said another way, the blocks are not part of a single data structure; rather, they are four distinct blocks.

table along with the checksums for each of the aforementioned blocks (*see* Talagala, Fig. 6C, 7B, 8B).

However, Talagala is silent with respect to storing checksums (*i.e.,* the first data block checksum, the second data block checksum, and the first indirect block checksum) in different physical locations in the storage pool. Further, Talagala does not disclose calculating a checksum for any blocks other than the data blocks and parity blocks. Said another way, Talagala fails to disclose calculating a checksum for the PGT. In contrast, amended independent claim 1 requires, in part, separate checksums for the first data block, the second data block, and the first indirect block. Thus, amended independent claim 1 requires a checksum for blocks other than the data blocks and parity blocks (*i.e.,* the blocks used to access the data blocks).

With respect to the calculation of checksums, Talagala fails to disclosure calculating a first indirect block checksum by applying a checksum function to the first indirect block, where the first indirect block includes a first data block checksum[3] and a second data block checksum[4]. Rather, Talagala is limited to calculating checksums directly from the data blocks or parity blocks[5].

Finally, Talagala does not disclose storing blocks (data and indirect) in the following order: first and second data blocks→first indirect block→second indirect block. Rather, Talagala only discloses storing data blocks (along with the parity blocks) and then including entries in the PGT.

In view of the above, Talagala does not disclose all the limitations of amended independent claim 1. Further, amended independent claims 18, 25, and 26 include similar patentable limitations to amended independent claim 1 and, thus, are patentable over Talagala for at least the same reasons

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[3] Located in the first block pointer.
[4] Located in the second block pointer.

as amended independent claim 1. Pending dependent claims are patentable over Talagala for at least the same reasons as amended independent claims 1 and 18. In view of the above, withdrawal of this rejection is respectfully requested.

New Claim

Independent claim 27 has been added by this reply. Claim 27 is directed to a method for retrieving data, where the data is stored in accordance with file system hierarchy shown in Figure 5 and flowchart shown in Figure 6 of the Instant Specification. As discussed above, Talagala fails to disclose storing data in a storage pool in accordance with the file system hierarchy shown in Figure 5. It logically follows that Talagala also does not disclose retrieval of data stored within the file system hierarchy shown in Figure 5. In view of the above, claim 27 is patentable over Talagala and, accordingly, favorable action in the form of a Notice of Allowability is respectfully requested.

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[5] A parity block does not include a checksum.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 03226/390001).

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